M E M O R A N D U M

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DATE: January 4, 2012

SUBJECT: Operational Position Statement for the Week of Jan 3 - 9, 2012

The U.S. Army Corps of Engineers (USACE) is responsible for managing Lake Okeechobee water levels and makes operational decisions about whether to retain water or release water based on their regulation schedule release guidance. The USACE makes this decision taking into account the best available science and data provided by its staff and a variety of partners, which includes the South Florida Water Management District (SFWMD).

The SFWMD team has discussed the system wide environmental conditions, the water supply conditions, and has evaluated the overall status of the water management system. Detailed reports are available at the SFWMD's Operational Planning internet page.

Weather and Climate
Rainfall during the past week totaled 0.12 inches district wide. December rainfall totaled 0.90 inches, which was about 48% of average. The SFWMD precipitation outlook for the next ten days (Dec 21 - Dec 30) is below-average with high confidence. The 31-Dec CPC precipitation outlook for January indicates increased chances of below-normal rainfall. For the 2011-2012 dry season, the CPC outlook continues to show increased chances for below-normal rainfall associated with La Nina conditions.

Upper and Lower Kissimmee Basins
Stages in the Kissimmee Chain of Lakes continue to hold steady at their respective regulation schedules; however Lake Kissimmee stage continues to show a slight recession as S-65 environmental releases are made to the Kissimmee River per the Interim Operational Schedule for Lake Kissimmmee-Hatchineha-Cypress. Discharge at S-65 to the Kissimmee River averaged about 540 cfs for the week ending Jan 1st, slightly down from the previous week's 530 cfs. Discharge from the Kissimmee River to Lake Okeechobee via S-65E averaged about 390 cfs for the week ending Jan 1st, down compared to the previous week's 490 cfs.

Lake Okeechobee Stage and Regulation Schedule
The Jan 3rd, 2012 Lake Okeechobee stage (reported by the USACE on January 2nd) was 13.65 feet NGVD, down slightly (0.06 feet lower) compared with 7-days ago. The January 2nd stage was about 0.1 feet lower than it was a month ago and about 1.2 feet higher than a year ago. The current stage is about 1.1 feet lower than the historical average for this date.

This week the Tributary Hydrologic Conditions are in the "dry" classification (LORS-2008 classifications). The 14-day average Lake Okeechobee Net Inflow was -1135 cfs (dry) through January 1st. The latest Palmer Index was -2.35 (dry). The January 2nd stage was about 1.1 feet above the bottom of the Baseflow Sub-band and about 1.5 feet above the Water Shortage Management Band. Water shortage restrictions were rescinded by the SFWMD governing board at their November, 2011 meeting.

The LORS-2008 release guidance suggests no releases to the WCAs due to the dry tributary hydrologic conditions. LORS-2008 release guidance also suggests up to 450 cfs at S-79, and up to 200 cfs at S-80. Refer to the recommendations section below.

Water Supply Risk Indicators

The risk status for the Lake Okeechobee Area is similar to last week. Four of the six LOSA water supply risk indicators are in the "medium risk" category; the other two are in the "high risk" category: the CPC precipitation outlook for the upcoming 3 months, and the Palmer Index. The risk status for all WCAs and Lower East Coast service areas remains within the "low risk" category.

The South Florida Water Management District Governing Board voted on November 10 to rescind a series of water shortage orders that restricted landscape irrigation and placed mandatory reductions of agricultural and other large water uses. The action was taken in response to improved water resource conditions throughout the District's 16-county region following the fourth-wettest October on record. With long-term forecasts still calling for below-average rainfall during the 2011-2012 dry season, the Governing Board also declared a water shortage warning to encourage continued vigilance and voluntary water conservation.

Groundwater Levels

Groundwater levels decreased a small amount over most of the District this week in most regularly monitored wells. Levels in United States Geological Survey (USGS) real-time wells in the Kissimmee Basin within the District range from median or higher levels to the lowest 10th percentile. Stages in the Upper East Coast (UEC) canals C-23, C-24, and C-25 are at 22.35, 20.38, and 21.73 ft NGVD, respectively, well above the 14 ft NGVD agricultural cutoff level. Groundwater levels in the UEC declined a little this week; however, half of the wells remain at median or higher levels for this time of year. Biscayne aquifer water elevations in the Lower East Coast (LEC) decreased slightly in most USGS stations. Less than half of the LEC wells are at median levels or higher for this time of year. Wells in the Kendall area of Miami-Dade County and also a few in South Dade and Homestead have decreased to their lowest 30th percentile levels. For more detailed information, refer to the Jan 3, 2012 Water Supply Report, which is posted at www.sfwmd.gov.

Everglades WCAs

During the past two weeks WCA water levels at the gages used for the regulation schedules receded. Levels rose very slightly in ENP's NESRS. Rainfall was slight and ranged from about 0.01 inches in WCA-2B to 0.12 inches in WCA-1. WCA-1 stage is about 0.6 feet below its lower (Zone B) regulation schedule. WCA-2A marsh gage (2-17) is about one foot above schedule and declining faster than the environmentally-desirable rate. WCA-3A stage has receded to about 0.2 feet below the top of the regulation schedule's upper transition zone (within Zone E).

Water releases from WCA-3A to ENP per the Shark Slough Rainfall Plan continue (target flow for the week is 578 cfs; the Rainfall Formula amount was also 578 cfs, down from last week's 646 cfs. S-333 is open to deliver target flows to Northeast Shark River Slough (stage at G-3273 is below the trigger stage of 6.8 feet, NGVD). S-12C, and S-12D are open to pass the target flow plus the portion of the S-333 target that S-333 cannot discharge due to the L-29 canal stage constraint (7.5 ft, NGVD). S-12A and S-12B are closed per the federal operating rules (Interim Operating Plan {IOP}).

St. Lucie Estuary

The estuary received no inflow via S-80 from Lake Okeechobee during the past week. The minor flow occurred on one day from testing of the gates at the structure. No inflow from C-23 and C-24 occurred. 7-day average salinity conditions in the SLE have decreased slightly during the past week, and the 30-day moving average remains within the preferred range at the US-1

Bridge; conditions are classified as good for oysters for this time of year. It is recommended that the estuary should not receive inflows from the Lake or from C-44 basin runoff. To conserve water supplies it is recommended that the USACE continue their current operation to direct C-44 basin runoff westward to Lake Okeechobee, and not eastward through S-80 to tide.

Caloosahatchee Estuary

Releases were made from the Lake via S-77 and to the Caloosahatchee Estuary via S-79 during the past three weeks (since December 16, 2011) per the Lake Okeechobee Adaptive Protocol (AP). Currently the 30-day moving average surface salinity is 5.5 psu at Val I-75 and 11.2 psu at Ft. Myers. The forecast indicates the 30-day moving average salinity at Val I-75 will exceed 5 psu within the next 2 weeks if no releases are made at S-79.

The detailed information regarding the Adaptive Protocol release guidance follows:
Each Tuesday the Coastal Ecosystem Section reviews the salinity conditions in the Caloosahatchee estuary and forecasts the predicted salinity for 14 days into the future at I-75. The criterion for when the estuary needs water depends on the two week predicted salinity at I-75 Bridge being at least 5 psu. Therefore according to the salinity criterion, the estuary needs freshwater inflow at S-79, supplemented from Lake Okeechobee as necessary.

The upper branch of the Adaptive Protocol release guidance flowchart applies since the stage is within the Baseflow Subband of the regulation schedule. Currently there is less than a 50% chance that the Lake stage will fall below elevation 11.0 ft, NGVD, before the end of the dry season. Correspondingly, the release guidance suggests releases up to 450 cfs at S-79, supplemented as needed with Lake Okeechobee releases at S-77.

Recommendation to the USACE

The Adaptive Protocol guidance suggests releases at S-79 up to 450 cfs, supplemented as needed from Lake Okeechobee. Therefore, the SFWMD recommends that the USACE initiate a baseflow release at S-79 beginning Friday, January 6th. It is recommended, from an ecological perspective, that 450 cfs average discharge for 7 days be conducted in a pulse fashion rather than a constant flow. The recommended daily S-79 flow schedule beginning on Friday, Jan 6th is provided below. The SFWMD also recommends that the USACE continue their standard operation to allow runoff from the C-44 basin (S-308 to S-80) to backflow to Lake Okeechobee via S-308 rather than discharge to tide via S-80.

Day	Date	S-79 cfs
1	1/6/2012	1000
2	1/7/2012	1200
3	1/8/2012	600
4	1/9/2012	350
5	1/10/2012	0
6	1/11/2012	0
7	1/12/2012	0
7-day	Sum	3150
7-day	Mean	450